

CHURCH & DWIGHT CO., INC.

CONSUMER PRODUCTS • SPECIALTY PRODUCTS



MATERIAL SAFETY DATA SHEET

MSDS NUMBER: MSDS-970P

ISSUE DATE: 01/11/05

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

ARMEX® BLAST MEDIA

Profile Formula XL with SupraKleen™
Profile Formula XL2 with SupraKleen™
Profile Formula XL2+ with SupraKleen™
Profile Formula XL3 with SupraKleen™
Profile Turbine Formula with SupraKleen™
Profile Turbine Formula 4000

MANUFACTURED BY:
Church & Dwight Co., Inc.
469 N. Harrison Street
Princeton, NJ 08543-5297

Emergency Phone:
1-609-683-5900 (USA)

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1-888-234-1828

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredient

CAS Number

Proprietary Sodium Bicarbonate Based Mixture -
Trade Secret Registry No. 18877400000-5003-P

Sodium Bicarbonate

144-55-8

(See Section 8 for Exposure Guidelines)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

White crystalline powder containing small brown particles. No odor.
Thermal spark hazard.
May generate static electricity during dry blasting with improperly grounded or ungrounded equipment.
Nuisance dusts.
No other significant health or environmental effects associated with these products.

HMIS Rating	
Health	1
Fire	0
Reactivity	0
Personal Protection	X

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Potential Health Effects

EYE: Not a chemical eye irritant. Solid particles entering the eye may cause irritation due to mechanical action.

SKIN CONTACT: Not a skin irritant

INGESTION: Ingestion of small amounts (1-2 tablespoonfuls) during normal handling operations may cause abdominal discomfort but are not likely to cause injury. Ingestion of larger amounts may cause injury.

INHALATION: May aggravate pre-existing upper respiratory and lung disorders.

SUBCHRONIC EFFECTS/CARCINOGENICITY: None known. Contains no ingredients that are listed as carcinogens or potential carcinogens by IARC, NTP, OSHA or ACGIH.

4. FIRST AID MEASURES

EYES: Check for and remove contact lenses. Flush eyes with clean flowing water, low pressure and lukewarm if possible, occasionally lifting upper and lower eyelids. Seek medical attention if irritation develops.

SKIN: Wash exposed areas thoroughly with soap or mild detergent and a large amount of water.

INGESTION: If large amounts are ingested, give water to drink. **Do not give anything orally to an unconscious person.** Seek medical attention.

INHALATION: If over-exposure occurs, remove to area free from risk of further exposure. Treat symptomatically. Seek medical attention if irritation persists.

NOTE TO PHYSICIAN: Ingestion of large amounts may cause systemic alkalosis. Treatment based on judgement of physician in response to reactions of patient.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT: Non-flammable; non-combustible

METHOD USED: Not applicable

FLAMMABLE LIMITS

LFL: Not applicable

UFL: Not applicable

EXTINGUISHING MEDIA: Use extinguishing media for surrounding fire.

FIRE-FIGHTING INSTRUCTIONS: Carbon dioxide may be generated by thermal decomposition or exposure to acids. Wear self-contained breathing apparatus (SCBA) and full protective equipment (Bunker Gear).

UNUSUAL FIRE AND EXPLOSION HAZARDS: Thermal or static sparks may be generated during the blasting operation. There are steps that can be taken to minimize static electricity buildup. However the thermal spark potential of this media makes it unsuitable for use in areas with potentially explosive or flammable materials. See Section 8 and product *Static Electricity Hazard Information Bulletin* for more information.



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6. ACCIDENTAL RELEASE MEASURES

Scoop into clean, dry containers for disposal. Avoid stirring up dust. Wear appropriate skin, eye and respiratory protection (See Section 8). Wash away uncontaminated residue with water.

7. HANDLING AND STORAGE

Store in original containers in a cool, dry area away from incompatible materials. Wear an approved dust mask or respirator during use or if dusts are generated during handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: ARMEX medias alone do not represent an inhalation hazard to the user. However, the use of these medias in ARMEX Cleaning and Coating Removal Systems presents use-specific exposure potentials based on the particular system and blasting conditions employed, and the characteristics of the coating being removed.

Abrasive Blasting: Wear a NIOSH approved dust-filter respirator for general exposure to ARMEX dusts above the established exposure guideline (see below), and for outdoor blasting of non-hazardous coatings. Use an abrasive blasting respirator for indoor or enclosed work, and whenever blasting hazardous coatings. Whenever possible, use appropriate engineering controls and/or containment measures during abrasive blasting to minimize exposure to airborne dusts.

EXPOSURE GUIDELINE: For Particulates Not Otherwise Classified (PNOC) - TLV-TWA of 10 mg/M³ as a nuisance dust (ACGIH) is the recommended exposure limit.

PROTECTIVE GLOVES: General purpose for handling dry product or heavy guage when dry blasting. Impervious (preferably heavy rubber) when wet blasting.

EYE PROTECTION: Not normally required for general handling of dry bulk product unless dusts are generated, in which case dust resistant goggles should be worn. Wear safety goggles and face shield during abrasive blasting operations if eyes and face are not fully protected by abrasive blasting respirator.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Full cover protective clothing is sufficient for general handling. Aprons or impervious cover for wet blasting operations.

PROTECTIVE WORK/HYGIENIC PRACTICES: No special requirements with respect to chemical exposure other than those noted above. However, when used in blasting, workers must adhere to good operating procedures designed to prevent physical contact with pressurized streams of ARMEX® Blast Media and surface coatings being removed. See operating instructions for blasting equipment for additional information.

To minimize static electricity hazards, properly ground the equipment and work piece, use a conductive nozzle, and wet blast whenever possible. Conduct the blasting operation in non-hazardous areas if possible (i.e., where



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flammable or combustible vapors, mists, gases or clouds of combustible dust are not present and will not be released). See *Static Electricity Hazard Information Bulletin*.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White crystalline powder containing small brown particles.

ODOR: None

PHYSICAL STATE: Free flowing solid

pH AS IS: Not Applicable

pH (1% SOLN. w/v): 8.2

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: Not applicable

BOILING POINT: Not applicable

FREEZING/MELTING POINT: Not applicable

SOLUBILITY IN WATER: 3.4 - 7.7 g/100 ml @ 68°F

DENSITY (g/cc): Approximately 1.0

% VOLATILE: Not applicable

VOLATILE ORGANIC COMPOUNDS: None

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: Contact with acids. Temperatures above 228°F.

INCOMPATIBILITY WITH OTHER MATERIALS: Reacts with acids to release carbon dioxide. May also yield free caustic in presence of lime dust (CaO) and moisture.

HAZARDOUS DECOMPOSITION PRODUCTS: Exposure to temperatures in excess of 228°F or incompatible materials (acids) may cause high levels of carbon dioxide gas to be generated. This presents a danger in confined spaces. Thermal decomposition brought on by exposure to temperatures in excess of 1000°F will yield sodium oxide, a severe skin, eye and inhalation irritant.

HAZARDOUS POLYMERIZATION: Will not occur.



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11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Sodium bicarbonate, the principal constituent in ARMEX® Blast Media, was classified as practically non-irritating and minimally irritating to the washed and unwashed eye, respectively, when tested in accordance with 40 CFR Part 792. The Maximum Mean Total Score (MMTS) for washed eyes was 2.0. The MMTS for unwashed eyes was 8.3.

SKIN EFFECTS: ARMEX® Blast Media was not a primary skin irritant when tested in accordance with 40 CFR 798.4470. The primary dermal irritation index (PDII) was 0.3 which indicates a minimal skin irritation potential.

11. TOXICOLOGICAL INFORMATION (cont'd)

ACUTE ORAL EFFECTS: ARMEX® Blast Media was non-toxic when tested in accordance with 40 CFR 798.1175. The LD₅₀ (oral-rat) was 8.0 g/Kg.

INHALATION EFFECTS: ARMEX® Blast Media was non-toxic and exhibited no observed adverse effects when tested in accordance with 40 CFR 798.1150. The LC₅₀ was determined to be greater than 4.94 mg/L in rats over a 4-1/2 hour exposure period.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY: Sodium bicarbonate, the principal constituent in ARMEX® Blast Media, was classified as practically non-toxic to the following environmental organisms:

Daphnids:	48 hour EC ₅₀ = 4100 mg/l; NOEC = 3100 mg/l
Bluegill:	96 hour LC ₅₀ = 7100 mg/l; NOEC = 5200 mg/l
Rainbow Trout:	96 hour LC ₅₀ = 7700 mg/l; NOEC = 2300 mg/l

13. DISPOSAL CONSIDERATIONS

Bury in a secured landfill in accordance with all local, state and federal environmental regulations. State and local regulations may differ from federal. Be sure to consult with appropriate agencies for specific rules. Empty containers may be incinerated or discarded as general trash.

Because of its non-hazardous nature, you may be able to sewer diluted waste ARMEX® Blast Media from blasting operations. Coatings removed during blasting may need to be contained, collected and disposed of separately. You will still be required to provide proof to the POTW or your local authorities that the waste material is non-hazardous, and obtain the appropriate NPDES discharge permits (if discharging directly into a storm sewer or waterway).

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14. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME: Not regulated

TECHNICAL SHIPPING NAME: Not regulated. Shipped as ARMEX® Blast Media Profile Formula.

D.O.T. HAZARD CLASS: None

U.N./N.A. NUMBER: None

HAZARDOUS SUBSTANCE/RQ: None

D.O.T. LABEL: None

D.O.T. PLACARD: None

15. REGULATORY INFORMATION

OSHA: Not hazardous under 29 CFR 1910.1200

CERCLA REPORTABLE QUANTITY: None

RCRA: Not a hazardous waste by listing or characteristic

SARA TITLE III:

Section 302, Extremely Hazardous Substances: None

Section 311/312, Hazardous Categories: Non-hazardous

Section 313, Toxic Chemicals: None

16. OTHER INFORMATION

ARMEX ingredients are reported in the EPA TSCA Inventory.

ARMEX ingredients are not listed as carcinogens or potential carcinogens by NTP Annual Report, IARC Group I or II, OSHA 29 CFR Part 1910 Subpart Z, or ACGIH Appendix A.

SUPERSEDES DATE: 08/27/02

REASON FOR REVISION: Regulatory review of content.

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